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EXAMINER

TAYLOR, JOSHUA D

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/806,830	Applicant(s) NISHIKAWA ET AL.	
	Examiner JOSHUA TAYLOR	Art Unit 2426	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 October 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,8-12 and 15-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,8-12 and 15-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Drafts, Person's Patent Drawing, Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This Office Action is in response to an AMENDMENT entered October 8, 2010 for the patent application 10/806,830 filed on March 23, 2004.
2. The Office Action of July 7, 2010 is fully incorporated into this Final Office Action by reference.

Status of Claims

3. Claims 1-2, 8-12 and 15-22 are pending.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-2, 8-12 and 15-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ellis et al. (Pub. No.: US 2003/0020744) in view of Robarts et al (Pub. No.: US 2005/0278741), Westberg (Pub. No.: US 2005/0102696) and Bachman et al. (Pub. No.: US 2004/0139107).

Regarding claim 1, Ellis discloses **a method of using an interactive program guide by at least one user on a given audio/visual device** (Figs. 2a, 3 and 6, para. [0006]), **comprising**

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the steps of: providing access to characterizing descriptors as individually correspond to a plurality of discrete selectable audio/visual programs (Figs. 6, 7, 8a-8c, paras [0071]-[0076]); **displaying an interactive program guide comprising at least one of the characterizing descriptors as corresponds to a particular one of the discrete selectable audio/visual programs** (Figs. 6, 7, 8a-8c, paras [0071]-[0076]. The title, time, and channel, all of which are characterizing descriptors, are all displayed), **providing a plurality of cascading filters for facilitating determination of a particular one of the discrete selectable audio/visual programs** (Figs. 9a and 9b, paras. [0078]-[0083]. A user may define a Boolean expression for processing; that is, choose several “filters” with which to narrow the search for programs. When processed, the filtering must be performed in a serial manner (i.e. sequentially), as opposed to a parallel manner. To follow the example shown in figure 9a, and assuming there are, for instance, 1,000 available programs, the process would first look for programs with Bruce Willis. This may reduce the number of available programs to 25. Then, the process would look at the remaining 25 programs for programs that were in the action genre. This may reduce the number of available programs to 20. Then, the process would look at the remaining 20 programs for programs that started after 7:00 pm. This may reduce the number of available programs to 10. This process would continue until all of the elements of the Boolean expression had been met. Since “cascade” can be defined as “A succession of stages, processes, operations, or units,” or more specifically in electronics as “A series of components or networks, the output of each of which serves as the input for the next (both definitions from www.thefreedictionary.com),” it can be seen that the filters of Ellis' figure 9a can be called cascading filters.), **the plurality of cascading filters being customizable for each at least one user** (Figs. 13a-13f, paras. [0086]-[0092]. Any

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user of the system can set up a Boolean search.), wherein the plurality of discrete selectable audio/visual programs are embodied in a plurality of media, wherein the plurality of cascading filters simultaneously considers content across the plurality of media (para. [0084] and [0119]. The server may query other sources for program guide data and videos that match a Boolean expression.). However, Ellis does not explicitly disclose the following, which Robarts does: **detecting preliminary selection of a particular one of the discrete selectable audio/visual programs to provide a preliminarily selected audio/visual program** (Robarts, Fig. 6, element 186); **when a user selects the preliminarily selected audio/visual program, automatically taking a first predetermined action with respect to the preliminarily selected audio/visual program** (Robarts, Fig. 6, element 200, paragraph [0075], lines 8-10); **when a user preliminarily selects a different one of the plurality of discrete selectable audio/visual program, automatically taking a second predetermined action with respect to the preliminarily selected audio/visual program, which second predetermined action is different than the first predetermined action** (Robarts, Fig. 6, element 186, paragraph [0072], lines 6-9. Element 186 is used to highlight a preliminarily selected program, so if the user were to select a different program, element 186 would move to highlight said different program); **when a user takes an action with respect to the preliminarily selected audio/visual program, which action does not comprise either selecting the preliminarily selected audio/visual program or preliminarily selecting a different audio/visual program, automatically taking a third predetermined action with respect to the preliminarily selected audio/visual program, which third predetermined action is different than the first and the second predetermined action** (Robarts, Fig. 6, element 202, paragraph [0077], lines 9-

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11), **wherein the step of automatically taking a first predetermined action comprises adding information regarding the preliminarily selected audio/visual program to a list of preferred items** (Robarts, Fig. 6, element 200, paragraph [0075], lines 8-10), **wherein the step of automatically taking a second predetermined action comprises moving an area of visual focus away from the preliminarily selected audio/visual program** (Robarts, Fig. 6, element 186, paragraph [0072], lines 6-9. Element 186 is used to highlight a preliminarily selected program, so if the user were to select a different program, element 186 would move to highlight said different program), **and wherein the step of automatically taking a third predetermined action comprises displaying the list of preferred items** (Robarts, Fig. 6, element 202, paragraph [0077], lines 9-11). Ellis discloses an interactive program guide which allows the user to filter television programs based on many different elements of said program. However, Ellis does not disclose the user adding elements to a filter by selecting a particular television program. Robarts discloses enabling a viewer to add a program to a predefined list of favorites (paragraph [0075], lines 8-10) in order for the user later to be able to quickly access a list of programs previously identified as favorites (Robarts, paragraph [0077], lines 9-11). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Ellis to allow for a user to be able to use elements of desirable programs in order to create or expand a filter. Allowing the user to select desirable programs and use those programs to create a filter would have been produced predictable and desirable results, as it would create an intuitive and robust method for the user to organize their preferences.

Neither Ellis nor Robarts disclose **automatically adding information corresponding to a particular one of the plurality of discrete selectable items of audio/visual content to the**

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updatable list of preferred items of audio/visual content when the area of visual focus is on a characterizing descriptor as corresponds to the particular one of the plurality of discrete selectable items of audio/visual content for greater than a predetermined length of time.

However, in analogous art Westberg discloses monitoring a user's activity by seeing if a user watches a program for more than a predetermined amount of time (i.e. is inactive in terms of scanning through channels), and if the user does, marking that television program as a potential program of interest (paragraphs [0091]-[0092]). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to allow for the program guide to update a list of preferred items based on a user's inactivity, i.e. if the area of visual focus does not move for greater than a predetermined length of time. This would have produced predictable and desirable results, as it would allow the system to use more available information in order to update a users list of preferred elements.

Although Ellis discloses performing a search to narrow down programming choices for a user, Ellis does not explicitly disclose **automatically purging the information in response to a predetermined trigger for facilitating display of recently relevant content, whereby a temporary tool for supporting a present browsing activity is provided, and whereby the viewer is relieved of memorization and corresponding cognitive loading.** However, in analogous art relating to data searches, Bachman discloses that it can be beneficial to automatically purge search information, referred to as a recipe, that is rarely utilized or obsolete based on a history of user interactions with the search engine (para. [0015]), and that after a certain time period, any recipe with a corresponding value below a predefined threshold will be removed from the database (Fig. 7B, paras. [0129]-[0133]). Therefore, it would have been

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obvious to one of ordinary skill in the art at the time of the invention to modify Ellis, Robarts, and Westberg to allow for the information corresponding to audio/visual content to be purged after a certain time period, which could in turn cause the method of Ellis, Robarts, and Westberg to be seen as being a temporary tool, and which would further ease the cognitive load of the viewer by disposing of information the user does not regularly access. This would have produced predictable and desirable results, in that storage space could be saved by discarding information that is no longer necessary.

Regarding claim 2, the combined teachings as stated above disclose **the method of claim 1**, and Ellis further discloses **wherein the characterizing descriptors as individually correspond to a plurality of discrete selectable audio/visual programs comprise at least one of: a programming network identifier** (Figs. 6, 7, 8a-8c, paras [0071]-[0076]. The network identifiers E!, MTV, and ESPN2, for example, are displayed); **a broadcast starting time** (Figs. 6, 7, 8a-8c, paras [0071]-[0076]. The times of 10:30 or 12:30, for example, are displayed); **a description of audio/visual content as corresponds to the audio/visual program** (Fig. 20c, paras. [0039] and [0112]); **audio/visual program media source** (Figs. 6, 7, 8a-8c, paras [0071]-[0076]. The channels are sources.).

Regarding claim 8, the combined teachings as stated above disclose **the method of claim 1**, and Robarts further discloses **wherein detecting preliminary selection of a particular one of the discrete selectable audio/visual programs further comprises detecting at least a predetermined relationship between a present position of one of the characterizing descriptors as corresponds to the particular one of the discrete selectable audio/visual**

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programs and an area of visual focus (Fig. 6, element 186, paragraph [0072], lines 6-9). This claim is rejected on the same grounds as claim 1.

Regarding claim 9, the combined teachings as stated above disclose **the method of claim 1**, and Robarts discloses **further comprising determining when the user selects the preliminarily selected audio/visual program by detecting when the user asserts a selection action at a time when a characterizing descriptor as corresponds to the preliminarily selected audio/visual program occupies, at least in part, a same portion of a display as a predetermined area of visual focus** (Fig. 6, elements 186 and 200, paragraph [0075], lines 8-10). This claim is rejected on the same grounds as claim 1.

Regarding claim 10, Ellis discloses **a method to facilitate provision of an interactive programming guide, comprising the steps of: providing access to characterizing descriptors as individually correspond to a plurality of discrete selectable items of audio/visual content** (Figs. 6, 7, 8a-8c, paras [0071]-[0076]); **displaying an interactive programming guide comprising at least one of the characterizing descriptors** (Figs. 6, 7, 8a-8c, paras [0071]-[0076]. The title, time, and channel, all of which are characterizing descriptors, are all displayed), **providing a plurality of cascading filters for facilitating determination of a particular one of the discrete selectable audio/visual programs** (Figs. 9a and 9b, paras. [0078]-[0083]. A user may define a Boolean expression for processing; that is, choose several “filters” with which to narrow the search for programs. When processed, the filtering must be performed in a serial manner (i.e. sequentially), as opposed to a parallel manner. To follow the example shown in figure 9a, and assuming there are, for instance, 1,000 available programs, the process would first look for programs with Bruce Willis. This may reduce the number of

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available programs to 25. Then, the process would look at the remaining 25 programs for programs that were in the action genre. This may reduce the number of available programs to 20. Then, the process would look at the remaining 20 programs for programs that started after 7:00 pm. This may reduce the number of available programs to 10. This process would continue until all of the elements of the Boolean expression had been met. Since “cascade” can be defined as “A succession of stages, processes, operations, or units,” or more specifically in electronics as “A series of components or networks, the output of each of which serves as the input for the next (both definitions from www.thefreedictionary.com),” it can be seen that the filters of Ellis' figure 9a can be called cascading filters.), **the plurality of cascading filters being customizable for each at least one user** (Figs. 13a-13f, paras. [0086]-[0092]. Any user of the system can set up a Boolean search.), **wherein the plurality of discrete selectable audio/visual programs are embodied in a plurality of media, wherein the plurality of cascading filters simultaneously considers content across the plurality of media** (para. [0084] and [0119]. The server may query other sources for program guide data and videos that match a Boolean expression.). However, Ellis does not disclose the following, which Robarts does: **providing an updatable list of preferred items of audio/visual content** (Robarts, Fig. 6, element 202, paragraph [0077], lines 9-11); **providing an area of visual focus on a particular displayed one of the characterizing descriptors** (Robarts, Fig. 6, element 186, paragraph [0072], lines 6-9); **in response to a first signal, adding information regarding the discrete selectable item of audio/visual content as corresponds to the particular displayed one of the characterizing descriptors as is presently in the area of visual focus to the updatable list of preferred items of audio/visual content** (Robarts, Fig. 6, element 200, paragraph [0075], lines 8-10); **in**

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response to a second signal that is different from the first signal, moving the area of visual focus to a different one of the characterizing descriptors (Robarts, Fig. 6, element 186, paragraph [0072], lines 6-9. Element 186 is used to highlight a preliminarily selected program, so if the user were to select a different program, element 186 would move to highlight said different program); **in response to a third signal that is different from both the first signal and the second signal, displaying the updatable list of preferred items of audio/visual content** (Robarts, Fig. 6, element 202, paragraph [0077], lines 9-11). Ellis discloses an interactive program guide which allows the user to filter television programs based on many different elements of said program. However, Ellis does not disclose the user adding elements to a filter by selecting a particular television program. Robarts discloses enabling a viewer to add a program to a predefined list of favorites (paragraph [0075], lines 8-10) in order for the user later to be able to quickly access a list of programs previously identified as favorites (Robarts, paragraph [0077], lines 9-11). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Ellis to allow for a user to be able to use elements of desirable programs in order to create or expand a filter. Allowing the user to select desirable programs and use those programs to create a filter would have been produced predictable and desirable results, as it would create an intuitive and robust method for the user to organize their preferences.

Neither Ellis nor Robarts disclose **automatically adding information corresponding to a particular one of the plurality of discrete selectable items of audio/visual content to the updatable list of preferred items of audio/visual content when the area of visual focus is on a characterizing descriptor as corresponds to the particular one of the plurality of discrete**

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selectable items of audio/visual content for greater than a predetermined length of time.

However, in analogous art Westberg discloses monitoring a user's activity by seeing if a user watches a program for more than a predetermined amount of time (i.e. is inactive in terms of scanning through channels), and if the user does, marking that television program as a potential program of interest (paragraphs [0091]-[0092]). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to allow for the program guide to update a list of preferred items based on a user's inactivity, i.e. if the area of visual focus does not move for greater than a predetermined length of time. This would have produced predictable and desirable results, as it would allow the system to use more available information in order to update a users list of preferred elements.

Although Ellis discloses performing a search to narrow down programming choices for a user, Ellis does not explicitly disclose **automatically purging the information in response to a predetermined trigger for facilitating display of recently relevant content, whereby a temporary tool for supporting a present browsing activity is provided, and whereby the viewer is relieved of memorization and corresponding cognitive loading.** However, in analogous art relating to data searches, Bachman discloses that it can be beneficial to automatically purge search information, referred to as a recipe, that is rarely utilized or obsolete based on a history of user interactions with the search engine (para. [0015]), and that after a certain time period, any recipe with a corresponding value below a predefined threshold will be removed from the database (Fig. 7B, paras. [0129]-[0133]). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Ellis, Robarts, and Westberg to allow for the information corresponding to audio/visual content to be purged

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after a certain time period, which could in turn cause the method of Ellis, Robarts, and Westberg to be seen as being a temporary tool, and which would further ease the cognitive load of the viewer by disposing of information the user does not regularly access. This would have produced predictable and desirable results, in that storage space could be saved by discarding information that is no longer necessary.

Regarding claim 11, the combined teachings as stated above disclose **the method of claim 10**, and Robarts further discloses **wherein the response to the third signal further comprises not displaying characterizing descriptors as correspond to items of audio/visual content that are not on the list of preferred items of audio/visual content** (Fig. 13, paragraph [0095], lines 1-14). This claim is rejected on the same grounds as claim 10.

Regarding claim 12, the combined teachings as stated above disclose **the method of claim 10**, and Robarts discloses **further comprising: receiving at least one of the first signal, the second signal, and the third signal from a remote control device** (paragraph [0044], lines 4-8). This claim is rejected on the same grounds as claim 10.

Regarding claim 15, Ellis discloses **a method to facilitate use of an interactive program guide, comprising the steps of: providing access to characterizing descriptors as individually correspond to a plurality of discrete selectable audio/visual programs** (Figs. 6, 7, 8a-8c, paras [0071]-[0076]); **displaying an interactive program guide comprising at least one of the characterizing descriptors as corresponds to a particular one of the discrete selectable audio/visual programs** (Figs. 6, 7, 8a-8c, paras [0071]-[0076]. The title, time, and channel, all of which are characterizing descriptors, are all displayed), **providing a plurality of**

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cascading filters for facilitating determination of a particular one of the discrete selectable audio/visual programs (Figs. 9a and 9b, paras. [0078]-[0083]. A user may define a Boolean expression for processing; that is, choose several “filters” with which to narrow the search for programs. When processed, the filtering must be performed in a serial manner (i.e. sequentially), as opposed to a parallel manner. To follow the example shown in figure 9a, and assuming there are, for instance, 1,000 available programs, the process would first look for programs with Bruce Willis. This may reduce the number of available programs to 25. Then, the process would look at the remaining 25 programs for programs that were in the action genre. This may reduce the number of available programs to 20. Then, the process would look at the remaining 20 programs for programs that started after 7:00 pm. This may reduce the number of available programs to 10. This process would continue until all of the elements of the Boolean expression had been met. Since “cascade” can be defined as “A succession of stages, processes, operations, or units,” or more specifically in electronics as “A series of components or networks, the output of each of which serves as the input for the next (both definitions from www.thefreedictionary.com),” it can be seen that the filters of Ellis' figure 9a can be called cascading filters.), **the plurality of cascading filters being customizable for each at least one user** (Figs. 13a-13f, paras. [0086]-[0092]. Any user of the system can set up a Boolean search.), **wherein the plurality of discrete selectable audio/visual programs are embodied in a plurality of media, wherein the plurality of cascading filters simultaneously considers content across the plurality of media** (para. [0084] and [0119]. The server may query other sources for program guide data and videos that match a Boolean expression.). However, Ellis does not disclose the following, which Robarts does: **detecting preliminary selection of a particular one of the discrete selectable**

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audio/visual programs to provide a preliminarily selected audio/visual program (Robarts, Fig. 6, element 186); determining when the user selects the preliminarily selected audio/visual program by detecting when the user asserts a selection action at a time when a characterizing descriptor as corresponds to the preliminarily selected audio/visual program occupies, at least in part, a same portion of a display as a predetermined area of visual focus (Robarts, Fig. 6, elements 186 and 200, paragraph [0075], lines 8-10. The location of element 186 determines the program that is added to the favorites list); when a user selects the preliminarily selected audio/visual program, automatically taking a first predetermined action with respect to the preliminarily selected audio/visual program (Robarts, Fig. 6, element 200, paragraph [0075], lines 8-10); when a user preliminarily selects a different one of the plurality of discrete selectable audio/visual program, automatically taking a second predetermined action with respect to the preliminarily selected audio/visual program, which second predetermined action is different than the first predetermined action (Robarts, Fig. 6, element 186, paragraph [0072], lines 6-9. Element 186 is used to highlight a preliminarily selected program, so if the user were to select a different program, element 186 would move to highlight said different program); when a user takes an action with respect to the preliminarily selected audio/visual program, the action not comprising either selecting the preliminarily selected audio/visual program or preliminarily selecting a different audio/visual program, automatically taking a third predetermined action with respect to the preliminarily selected audio/visual program, which third predetermined action is different than the first and the second predetermined action (Robarts, Fig. 6, element 202, paragraph [0077], lines 9-11), wherein the characterizing descriptors as individually

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correspond to a plurality of discrete selectable audio/visual programs comprise at least one element selected from a group consisting essentially of a programming network identifier, a broadcast starting time, a description of audio/visual content as corresponds to the audio/visual program, and an audio/visual program media source (Robarts, Fig. 6, paragraphs [0068]-[0069]), wherein the step of automatically taking a first predetermined action comprises adding information regarding the preliminarily selected audio/visual program to a list of preferred items (Robarts, Fig. 6, element 200, paragraph [0075], lines 8-10), wherein the step of automatically taking a second predetermined action comprises moving an area of visual focus away from the preliminarily selected audio/visual program (Robarts, Fig. 6, element 186, paragraph [0072], lines 6-9. Element 186 is used to highlight a preliminarily selected program, so if the user were to select a different program, element 186 would move to highlight said different program), wherein the step of automatically taking a third predetermined action comprises displaying the list of preferred items (Robarts, Fig. 6, element 202, paragraph [0077], lines 9-11), and wherein the step of detecting preliminary selection of a particular one of the discrete selectable audio/visual programs further comprises detecting at least a predetermined relationship between a present position of one of the characterizing descriptors as corresponds to the particular one of the discrete selectable audio/visual programs and an area of visual focus (Robarts, Fig. 6, elements 186 and 200, paragraph [0075], lines 8-10. The location of element 186 determines the program that is added to the favorites list). Ellis discloses an interactive program guide which allows the user to filter television programs based on many different elements of said program. However, Ellis does not disclose the user adding elements to a filter by selecting a particular television program.

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Robarts discloses enabling a viewer to add a program to a predefined list of favorites (paragraph [0075], lines 8-10) in order for the user later to be able to quickly access a list of programs previously identified as favorites (Robarts, paragraph [0077], lines 9-11). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Ellis to allow for a user to be able to use elements of desirable programs in order to create or expand a filter. Allowing the user to select desirable programs and use those programs to create a filter would have been produced predictable and desirable results, as it would create an intuitive and robust method for the user to organize their preferences.

Neither Ellis nor Robarts disclose **automatically adding information corresponding to a particular one of the plurality of discrete selectable items of audio/visual content to the updatable list of preferred items of audio/visual content when the area of visual focus is on a characterizing descriptor as corresponds to the particular one of the plurality of discrete selectable items of audio/visual content for greater than a predetermined length of time.**

However, in analogous art Westberg discloses monitoring a user's activity by seeing if a user watches a program for more than a predetermined amount of time (i.e. is inactive in terms of scanning through channels), and if the user does, marking that television program as a potential program of interest (paragraphs [0091]-[0092]). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to allow for the program guide to update a list of preferred items based on a user's inactivity, i.e. if the area of visual focus does not move for greater than a predetermined length of time. This would have produced predictable and desirable results, as it would allow the system to use more available information in order to update a users list of preferred elements.

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Although Ellis discloses performing a search to narrow down programming choices for a user, Ellis does not explicitly disclose **automatically purging the information in response to a predetermined trigger for facilitating display of recently relevant content, whereby a temporary tool for supporting a present browsing activity is provided, and whereby the viewer is relieved of memorization and corresponding cognitive loading.** However, in analogous art relating to data searches, Bachman discloses that it can be beneficial to automatically purge search information, referred to as a recipe, that is rarely utilized or obsolete based on a history of user interactions with the search engine (para. [0015]), and that after a certain time period, any recipe with a corresponding value below a predefined threshold will be removed from the database (Fig. 7B, paras. [0129]-[0133]). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Ellis, Robarts, and Westberg to allow for the information corresponding to audio/visual content to be purged after a certain time period, which could in turn cause the method of Ellis, Robarts, and Westberg to be seen as being a temporary tool, and which would further ease the cognitive load of the viewer by disposing of information the user does not regularly access. This would have produced predictable and desirable results, in that storage space could be saved by discarding information that is no longer necessary.

Regarding claim 16, Ellis discloses **a method to facilitate provision of an interactive programming guide, comprising: providing access to characterizing descriptors as individually correspond to a plurality of discrete selectable items of audio/visual content** (Figs. 6, 7, 8a-8c, paras [0071]-[0076]); **displaying an interactive programming guide comprising at least one of the characterizing descriptors** (Figs. 6, 7, 8a-8c, paras [0071]-

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[0076]. The title, time, and channel, all of which are characterizing descriptors, are all displayed), **providing a plurality of cascading filters for facilitating determination of a particular one of the discrete selectable audio/visual programs** (Figs. 9a and 9b, paras. [0078]-[0083]. A user may define a Boolean expression for processing; that is, choose several “filters” with which to narrow the search for programs. When processed, the filtering must be performed in a serial manner (i.e. sequentially), as opposed to a parallel manner. To follow the example shown in figure 9a, and assuming there are, for instance, 1,000 available programs, the process would first look for programs with Bruce Willis. This may reduce the number of available programs to 25. Then, the process would look at the remaining 25 programs for programs that were in the action genre. This may reduce the number of available programs to 20. Then, the process would look at the remaining 20 programs for programs that started after 7:00 pm. This may reduce the number of available programs to 10. This process would continue until all of the elements of the Boolean expression had been met. Since “cascade” can be defined as “A succession of stages, processes, operations, or units,” or more specifically in electronics as “A series of components or networks, the output of each of which serves as the input for the next (both definitions from www.thefreedictionary.com),” it can be seen that the filters of Ellis' figure 9a can be called cascading filters.), **the plurality of cascading filters being customizable for each at least one user** (Figs. 13a-13f, paras. [0086]-[0092]. Any user of the system can set up a Boolean search.), **wherein the plurality of discrete selectable audio/visual programs are embodied in a plurality of media, wherein the plurality of cascading filters simultaneously considers content across the plurality of media** (para. [0084] and [0119]. The server may query other sources for program guide data and videos that match a Boolean expression.).

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However, Ellis does not disclose the following, which Robarts does: **providing an updatable list of preferred items of audio/visual content** (paragraph [0077]); **providing an area of visual focus on a particular displayed one of the characterizing descriptors** (Robarts, Fig. 6, element 186); **in response to a first signal, adding information regarding the discrete selectable item of audio/visual content as corresponds to the particular displayed one of the characterizing descriptors as is presently in the area of visual focus to the updatable list of preferred items of audio/visual content** (Robarts, Fig. 6, element 200, paragraph [0075], lines 8-10); **in response to a second signal that is different from the first signal, moving the area of visual focus to a different one of the characterizing descriptors** (Robarts, Fig. 6, element 186, paragraph [0072], lines 6-9. Element 186 is used to highlight a preliminarily selected program, so if the user were to select a different program, element 186 would move to highlight said different program); **in response to a third signal that is different from both the first signal and the second signal, displaying the updatable list of preferred items of audio/visual content** (Robarts, Fig. 6, element 202, paragraph [0077], lines 9-11), **receiving at least one of the first signal, the second signal, and the third signal from a remote control device** (Robarts, paragraph [0044], lines 4-8), **wherein the response to the third signal further comprises not displaying characterizing descriptors as correspond to items of audio/visual content that are not on the list of preferred items of audio/visual content** (Robarts, Fig. 13, paragraph [0095], lines 1-14). Ellis discloses an interactive program guide which allows the user to filter television programs based on many different elements of said program. However, Ellis does not disclose the user adding elements to a filter by selecting a particular television program. Robarts discloses enabling a viewer to add a program to a predefined list of favorites (paragraph

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[0075], lines 8-10) in order for the user later to be able to quickly access a list of programs previously identified as favorites (Robarts, paragraph [0077], lines 9-11). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Ellis to allow for a user to be able to use elements of desirable programs in order to create or expand a filter. Allowing the user to select desirable programs and use those programs to create a filter would have been produced predictable and desirable results, as it would create an intuitive and robust method for the user to organize their preferences.

Neither Ellis nor Robarts disclose **automatically adding information corresponding to a particular one of the plurality of discrete selectable items of audio/visual content to the updatable list of preferred items of audio/visual content when the area of visual focus is on a characterizing descriptor as corresponds to the particular one of the plurality of discrete selectable items of audio/visual content for greater than a predetermined length of time.**

However, in analogous art Westberg discloses monitoring a user's activity by seeing if a user watches a program for more than a predetermined amount of time (i.e. is inactive in terms of scanning through channels), and if the user does, marking that television program as a potential program of interest (paragraphs [0091]-[0092]). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to allow for the program guide to update a list of preferred items based on a user's inactivity, i.e. if the area of visual focus does not move for greater than a predetermined length of time. This would have produced predictable and desirable results, as it would allow the system to use more available information in order to update a users list of preferred elements.

Although Ellis discloses performing a search to narrow down programming choices for a user, Ellis does not explicitly disclose **automatically purging the information in response to a predetermined trigger for facilitating display of recently relevant content, whereby a temporary tool for supporting a present browsing activity is provided, and whereby the viewer is relieved of memorization and corresponding cognitive loading.** However, in analogous art relating to data searches, Bachman discloses that it can be beneficial to automatically purge search information, referred to as a recipe, that is rarely utilized or obsolete based on a history of user interactions with the search engine (para. [0015]), and that after a certain time period, any recipe with a corresponding value below a predefined threshold will be removed from the database (Fig. 7B, paras. [0129]-[0133]). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Ellis, Robarts, and Westberg to allow for the information corresponding to audio/visual content to be purged after a certain time period, which could in turn cause the method of Ellis, Robarts, and Westberg to be seen as being a temporary tool, and which would further ease the cognitive load of the viewer by disposing of information the user does not regularly access. This would have produced predictable and desirable results, in that storage space could be saved by discarding information that is no longer necessary.

Regarding claim 17, the combined teachings as stated above disclose **the method of Claim 1**, and Bachman further discloses **wherein the automatically purging step comprises responding to the predetermined trigger comprising at least one element selected from a group consisting essentially of a specific time of day, a specific period of time, a specific period of time after an initial entry in the updateable list, a specific period of time after a**

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final entry in the updateable list, a detection of a specific triggering event, and a detection of a particular program selection for present viewing (Bachman, Fig. 7B, paras. [0129]-[0133]. Bachman discloses the “specific period of time” limitation, as paragraph [0132] states “When the time period has elapsed...” and a value is below a threshold, the recipe is removed from the database.). Therefore, this claim is rejected on the same grounds as claim 1.

Regarding claim 18, the combined teachings as stated above disclose **the method of Claim 10**, and Bachman further discloses **wherein the automatically purging step comprises responding to the predetermined trigger comprising at least one element selected from a group consisting essentially of a specific time of day, a specific period of time, a specific period of time after an initial entry in the updateable list, a specific period of time after a final entry in the updateable list, a detection of a specific triggering event, and a detection of a particular program selection for present viewing** (Bachman, Fig. 7B, paras. [0129]-[0133]. Bachman discloses the “specific period of time” limitation, as paragraph [0132] states “When the time period has elapsed...” and a value is below a threshold, the recipe is removed from the database.). Therefore, this claim is rejected on the same grounds as claim 10.

Regarding claim 19, the combined teachings as stated above disclose **the method of Claim 15**, and Bachman further discloses **wherein the automatically purging step comprises responding to the predetermined trigger comprising at least one element selected from a group consisting essentially of a specific time of day, a specific period of time, a specific period of time after an initial entry in the updateable list, a specific period of time after a final entry in the updateable list, a detection of a specific triggering event, and a detection of a particular program selection for present viewing** (Bachman, Fig. 7B, paras. [0129]-

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[0133]. Bachman discloses the “specific period of time” limitation, as paragraph [0132] states “When the time period has elapsed...” and a value is below a threshold, the recipe is removed from the database.). Therefore, this claim is rejected on the same grounds as claim 15.

Regarding claim 20, the combined teachings as stated above disclose **the method of Claim 16**, and Bachman further discloses **wherein the automatically purging step comprises responding to the predetermined trigger comprising at least one element selected from a group consisting essentially of a specific time of day, a specific period of time, a specific period of time after an initial entry in the updateable list, a specific period of time after a final entry in the updateable list, a detection of a specific triggering event, and a detection of a particular program selection for present viewing** (Bachman, Fig. 7B, paras. [0129]-[0133]. Bachman discloses the “specific period of time” limitation, as paragraph [0132] states “When the time period has elapsed...” and a value is below a threshold, the recipe is removed from the database.). Therefore, this claim is rejected on the same grounds as claim 16.

Regarding claim 21, the combined teachings as stated above disclose **the method of Claim 1**, and further discloses **wherein the automatically adding step comprises adding information corresponding to the particular one of the plurality of discrete selectable items of audio/visual content to the updatable list of preferred items** (Robarts, Fig. 6, element 202, paragraph [0077], lines 9-11) **when the particular one of the plurality of discrete selectable items comprises the particular one of the discrete selectable audio/visual programs determined by one or more of the plurality of cascading filters** (Ellis, Figs. 9a and 9b, paras. [0078]-[0083]). It would have been obvious to one of ordinary skill in the art at the time of the invention to allow for the results from the filter of Ellis to be added to the preferred list of

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Robarts, as when a user searches for desirable content, it can be assumed that the result of the search will contain desirable content. This would have produced predictable and desirable results, in that the user's list of preferred items could contain items the user has searched for, and thus desires, without the user having to perform extra steps in order to add said items to the list.

Regarding claim 22, the combined teachings as stated above disclose **the method of Claim 1**, and Westberg further discloses **wherein the automatically adding step is performed without any explicit input from the user such that the automatically step is completely transparent to the user** (paragraphs [0091]-[0092]. As with the rejection of claim 1, Westberg teaches that there is no explicit input from the user, but rather that the system monitors the user's behavior to automatically recognize a potential program of interest.). Therefore, this claim is rejected on the same grounds as claim 1.

Response to Arguments

Applicant's arguments with respect to claims 1-2, 8-12 and have been considered but are moot in view of the new grounds of rejection, except for the following argument:

Regarding Applicant's argument on page 15:

In asserting that the cited combination describes this limitation the Examiner admits that neither Ellis nor Roberts disclose this limitation and instead relies on Westberg as disclosing the limitation (Office Action, pg. 10). However, Applicants respectfully submit that Westberg similarly fails to describe or suggest this limitation. More specifically, the cited portions of Westberg, as well as the reference in its entirety, describe monitoring whether a user watches a program for more than a predetermined period of time (see Westberg, [0091]-[0092]). That is, in Westberg once the item has been selected for viewing by the user and is being viewed, the system monitors to determine whether the user views the program for a certain amount of time, such information is then added to a preferred items list for future recommendation of other items to the user (see Westberg, [0099]). This is different than what is recited in claim 1, i.e.

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"automatically adding information corresponding to a particular one of the plurality of discrete selectable items of audio/visual content to the updatable list of preferred items of audio/visual content when the area of visual focus is on a characterizing descriptor as corresponds to the particular one of the plurality of discrete selectable items of audio/visual content for greater than a predetermined length of time". Instead, Westberg's system is dealing with already selected items, being viewed by the user, for future recommendation of other programs to the user.

Examiner's Response:

Examiner asserts that the Westberg reference teaches the concept that monitoring the length of time that a user interacts with television content can be used to ascertain information about the relative interest that said user has in said content, and further that this teaching in combination with the disclosures of Ellis and Robarts concerning adding content to a preferred list obviate Applicant's claim language, as it would have been obvious to one of ordinary skill in the art at the time of the invention to allow for the program guide to update a list of preferred items based on a user's inactivity, i.e. if the area of visual focus does not move for greater than a predetermined length of time. This would have produced predictable and desirable results, as it would allow the system to use more available information in order to update a users list of preferred elements.

Conclusion

6. Claims 1-2, 8-12 and 15-22 are rejected.

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7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JOSHUA TAYLOR whose telephone number is (571) 270-3755. The examiner can normally be reached on 8am-5pm, M-F, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Hirl can be reached on (571) 272-3685. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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/Josh Taylor/
Examiner, Art Unit 2426

/Joseph P. Hirl/
Supervisory Patent Examiner, Art Unit 2426
December 16, 2010